

DECLARATION  
FOR UTILITY OR DESIGN  
PATENT APPLICATION

) Attorney Docket No ) 68739  
)  
) First Named Inventor: Shimasaki et al.  
)  
)  
) Application Number: 09/548,714  
)  
) Filing Date: April 13, 2000  
)  
) Group Art Unit: 1743  
)  
) Examiner Name:

☐ Declaration Submitted With Initial Filing  
☒ Declaration Submitted After Initial Filing

As a below named inventor, I hereby declare that:

My residence, post office address and citizenship are as stated below next to my name.

I believe I am the original, first and sole inventor (if only one name is listed below) or an original, first and joint inventor (if plural names are listed below) of the subject matter which is claimed and for which a patent is sought on the invention entitled:

VIRAL DETECTION METHOD USING ENCODED ENZYMES  
AND CHEMILUMINESCENT SUBSTRATES

(Title of Invention)

the specification of which:

( ) is attached hereto, or

(X) was filed by an authorized person on my behalf on 4/13/00 (Date)  
as United States Application Number 09/548,714  
or PCT International Application Number \_\_\_\_\_,  
and was amended on \_\_\_\_\_ (if applicable).  
(Date)

I hereby state that I have reviewed and understand the contents of the above-identified specification, including the claims, as amended by any amendment specifically referred to above.

I acknowledge the duty to disclose information which is material to patentability as defined in Title 37, Code of Federal Regulations, §1.56.

I hereby claim foreign priority benefits under Title 35, United States Code, §119(a)-(d) or §365(b) of any foreign application(s) for patent or inventor's certificate, or §365(a) of any PCT international application which designated at least one country other than the United States of America, listed below, and I have also identified below, by checking the box, any foreign application for patent or inventor's certificate, or any PCT international application, on this invention filed by me or my legal representatives or assigns and having a filing date before that of the application on which priority is claimed:

Prior Foreign Application Number(s)	Country	Foreign Filing Date	Priority Not Claimed	Certified Copy Attached	
				Yes	No
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
			<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>

☐ Additional foreign application numbers are listed on a supplemental priority data sheet attached hereto.

I hereby claim the benefit under Title 35, United States Code, §119(e) of any United States provisional application(s) listed below:

Provisional Application  
Number(s)

60/129,602

Provisional Application  
Filing Date

April 16, 1999

☐ Additional provisional application numbers are listed on a supplemental priority data sheet attached hereto.

I hereby claim the benefit under Title 35, United States Code, §120, of any prior United States application(s), or under §365(c) of any PCT international application(s) designating the United States of America, listed below and, insofar as the subject matter of each of the claims of this application is not disclosed in the prior United States or PCT international application(s) in the manner provided by the first paragraph of Title 35, United States Code, §112, I acknowledge the duty to disclose all information known by me to be material to patentability as defined in Title 37, Code of Federal Regulations, §1.56, which became available between the filing date of the prior application(s) and the national or PCT international filing date of this application:

<u>Prior U.S.</u> <u>Application Number</u>	<u>Prior PCT</u> <u>International</u> <u>Application Number</u>	<u>Filing Date of</u> <u>U.S. or PCT</u> <u>International</u> <u>Application</u>	<u>Patent Number</u> <u>(if applicable)</u>
60/129,602		4/16/99	

☐ Additional U.S. or PCT international application numbers are listed on a supplemental priority data sheet attached hereto.

As a named inventor, I hereby appoint the practitioners associated with Customer Number 22242, with full power of substitution and revocation, to prosecute this application and to transact all business in the United States Patent and Trademark Office connected therewith, and request that all correspondence and telephone calls in respect to this application be directed to FITCH, EVEN, TABIN & FLANNERY, Suite 1600, 120 South LaSalle

Street, Chicago, Illinois 60603-3406, Telephone No. (312) 577-7000,  
Facsimile No. (312) 577-7007, CUSTOMER NUMBER 22242.



I hereby declare that all statements made herein of my own knowledge are true, and that all statements made herein on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code, and that such willful false statements may jeopardize the validity or enforceability of the application or any patent issued thereon.

Full name of sole or one  
joint inventor:

Craig D. Shimasaki  
(Given names first, with Family name last)

Inventor's signature:

Craig D. Shimasaki

Date:

8/18/00

Residence:

Edmond, Oklahoma  
(City and State for U.S. Residents;  
City and Country for others)

Post Office Address:

14200 S. MacArthur Blvd.

Edmond, OK 73003

Citizenship:

United States

Full name of sole or one  
joint inventor:

Komandoor Elayavalli Achyuthan  
(Given names first, with Family name last)

Inventor's signature:

K. Elayavalli Achyuthan

Date:

8/23/00

Residence:

Oklahoma City, Oklahoma  
(City and State for U.S. Residents;  
City and Country for others)

Post Office Address:

6101 Maisons Drive

Oklahoma City, OK 73120

Citizenship:

U.S. Resident, Alien of India

Full name of sole or one  
joint inventor:

Brooks Edwards  
(Given names first, with Family name last)

Inventor's signature:

Date:

Residence:

Cambridge, MA  
(City and State for U.S. Residents;  
City and Country for others)

Post Office Address:

269 Huron Avenue  
Cambridge, MA 02138

Citizenship:

United States

Full name of sole or one  
joint inventor:

(Given names first, with Family name last)

Inventor's signature:

Date:

Residence:

(City and State for U.S. Residents;  
City and Country for others)

Post Office Address:

Citizenship:

Full name of sole or one  
joint inventor:

(Given names first, with Family name last)

Inventor's signature:

Date:

Residence:

(City and State for U.S. Residents;  
City and Country for others)

Post Office Address:

Citizenship:

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant(s): Shimasaki et al. )  
)  
Appln. No.: 09/548,714 )  
Filed: April 13, 2000 )  
Title: VIRAL DETECTION METHOD USING )  
VIRAL ENCODED ENZYMES AND )  
CHEMILUMINESCENT SUBSTRATES )  
Group Art Unit: 1743 )  
Examiner: Not Yet Assigned )  
)  
)

I hereby certify that this paper is  
being deposited with the United States  
Postal Service as first class mail in an  
envelope addressed to: Commissioner of  
Patents and Trademarks, Washington, D.C.  
20231, on this date

10-10-00  
Date R. A. Kaba  
Registration No. 30,562  
Attorney for Applicant(s)

PETITION UNDER 37 CFR §1.47(a) FOR FILING  
APPLICATION ON BEHALF OF NONSIGNING INVENTOR

Commissioner of Patents  
and Trademarks  
Attention: Assistant Commissioner  
of Patents  
Washington, D.C. 20231

Sir:

Pursuant to 37 CFR §1.47(a), applicants Craig D. Shimasaki and Komandoor E. Achyuthan, hereby respectfully petition to proceed with this application on behalf of the non-signing inventor, Brooks Edwards. This utility patent application is based on U.S. Provisional Application No. 60/129,602, filed April 16, 1999.

At the time the provisional was filed, Brooks Edwards was an employee of Tropix.

Upon the filing of the utility application, Craig D. Shimasaki, Vice President of ZymeTx and one of the inventors for this application, attempted to contact Brooks Edwards at Tropix to obtain his signature on the Declaration for the utility application. Tropix responded in a letter from their attorneys, Piper, Marbury, Rudnick & Wolfe, dated July 13, 2000 (copy enclosed). Tropix indicated that Mr. Edwards would not sign the Declaration as requested by Dr. Shimasaki.

Applicants were, therefore, unable to obtain a declaration with the signature of all three inventors. Applicants hereby request the making of the application on behalf of the signing inventors and on behalf of the nonsigning inventor.

In support of this petition, applicants submit the following: (1) Declaration of Richard A. Kaba Setting Forth the Statement of Facts in Support of Filing on Behalf of Nonsigning Inventor Under 37 CFR §1.47(a); (2) Declaration of Julia Starr; (3) a check in the amount of \$65.00 to cover the petition fee set forth in 37 CFR §1.17(i); (4) the executed declarations by inventors Shimasaki and Achyuthan on their own behalf, the Declaration does not include the signature of the nonsigning inventor Edwards, (accordingly, the declaration includes the last known address of the nonsigning inventor Edwards).

Based on the Declaration Of Richard A. Kaba, the facts show the diligent effort made to secure the execution of the supplemental declaration by the nonsigning inventor, Brooks Edwards. They also show that Tropix declined ZymeTx's request for Brooks Edwards to sign the declaration.

Therefore, the petitioners respectfully request to proceed on their behalf and on behalf of the nonsigning inventor.

The Commissioner is hereby authorized to charge any additional fees which may be required in this application, or credit any overpayment, to Deposit Account No. 06-1135. This sheet is filed in duplicate.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

By: 

Richard A. Kaba  
Registration No. 30,562

Date: October 10, 2000

120 South LaSalle Street, Suite 1600  
Chicago, Illinois 60603-3406  
312/577-7000



1200 Nineteenth Street, N.W.  
Washington, D.C. 20036-2412  
www.piperrudnick.com

PHONE (202) 861-3900  
FAX (202) 223-2085

**WRITER'S INFORMATION**

steven.kolber@piperrudnick.com  
DIRECT NO: (202) 861-6675  
FAX (202) 223-2085

July 13, 2000

**Via Facsimile**

Craig Shimasaki, Ph.D.  
ZymeTx, Inc.  
800 Research Parkway  
Suite 100  
Oklahoma City, Oklahoma 73104

Re: Patent application to Viral Detection Methods Using Chemiluminescence

Dear Dr. Shimasaki:

Further to our earlier correspondence and discussions in this matter, this will confirm our receipt, and consideration by outside counsel, of your request that Brooks Edwards sign as an inventor in the application filed by ZymeTx claiming priority from U.S. Provisional Application 60/129,602 filed April 16, 1999. We are delighted to be working together to protect the developing technology. We must decline the invitation to have Brooks Edwards join, and suggest that ZymeTx abandon it's application. This is to improve our joint protection. We invite you to join, as a co-inventor, on our pending application, which claims priority of U.S. Provisional Application 60/108,703 filed November 17, 1998. A copy of that application is enclosed herewith. Should you elect to join as a co-inventor, we will also provide an Assignment for you to execute in favor of Tropix, Inc. Any co-inventor at ZymeTx may also be named.

It is clear that the Tropix and ZymeTx applications are directed to the same subject matter. We think it may be better to pursue the Tropix application, for a variety of reasons. First, the Tropix application has a prior filing date by some five months. Thus, in the world outside of the United States, the ZymeTx application will be rejected for lack of novelty over the Tropix application, which bears an earlier filing date. In the United States, if both applications are pursued, an interference will be declared, with Tropix as the senior party.

Pursuant to the Development Agreement between our companies, Tropix is to own all intellectual property. The patent application, and any patents to issue thereon, are a central element of this intellectual property. It makes it easier to proceed with the one case, assigned to Tropix.

Craig Shimasaki  
ZymeTx, Inc.  
July 13, 2000  
Page 2

Further, we note that there appear to be potential inadequacies or inaccuracies in the description of the method of manufacture of the chemiluminescent substrate at the heart of this technology, which appears at page 14, lines 15-17, only, in the ZymeTx application. In fact, the dioxetane reporter molecule is not coupled with the neuraminic acid moiety. The Tropix application (copy enclosed) provides a more detailed description of that synthetic technology.

Although Tropix filed the application without naming you and any co-inventors at ZymeTx as inventors, in good faith, based on a comparison of the two patent applications, and a review of the situation by our outside counsel, we are persuaded that additional inventors may be properly named as an inventor on the Tropix application. Additional joint inventions, as we discussed, should become the subject of additional applications that are jointly prepared.

Please confirm that this is acceptable, and we will forward the appropriate declaration and assignment papers.

Sincerely,



Steven B. Kelber

SBK/sfm  
cc: Melissa Kaplan Morse

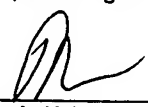


**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant(s): Shimasaki et al.  
Appln. No.: 09/548,714  
Filed: April 13, 2000  
Title: VIRAL DETECTION METHOD USING  
ENCODED ENZYMES AND  
CHEMILUMINESCENT SUBSTRATES  
Group Art  
Unit: 1743  
Examiner: Unknown

I hereby certify that this paper is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Commissioner of Patents and Trademarks, Washington, D.C. 20231, on this date.

10-10-00  
Date

  
R. A. Kaba  
Registration No. 30,562  
Attorney for Applicant(s)

**DECLARATION OF RICHARD A. KABA**

Honorable Commissioner of Patents  
and Trademarks  
ATTENTION: Assistant Commissioner for Patents  
Washington, D.C. 20231

Dear Sir:

This statement sets forth facts showing the diligent effort made to secure the execution of the declaration by the nonsigning inventor, Brooks Edwards, in connection with the above-identified patent application.

On information and belief, I, RICHARD A. KABA, declare:

1. I am a registered patent attorney with the firm of Fitch, Even, Tabin & Flannery, 120 South LaSalle Street, Suite 1600, Chicago, Illinois 60603, that represents Applicants Craig D. Shimasaki and Komandoor E. Achyuthan, along with the Assignee ZymeTx, Inc.

("ZymeTx), having its principal place of business at 800 Research Parkway, Suite 100, Oklahoma City, OK 73014, for the above-identified patent application.

2. The facts set forth herein are based on knowledge and belief.
3. On April 16, 1999, Provisional Patent Application No. 60/129,602, entitled VIRAL DETECTION METHOD USING VIRAL ENCODED ENZYMES AND CHEMILUMINESCENT SUBSTRATES, was filed naming as inventors Craig D. Shimasaki; Komandoor E. Achyuthan, and Brooks Edwards.
4. On April 13, 2000, the U.S. Application No. 09/548,714, was filed with an unexecuted declaration.
5. Brooks Edwards was an employee of Tropix, Inc. ("Tropix"), at the time the invention was made.
6. Applicant contacted Tropix in order for Mr. Edwards to request that he sign the Declaration. A Declaration by Ms. Julia Starr of ZymeTx is attached detailing the efforts of ZymeTx to obtain the signature of Mr. Brooks Edwards.
7. Applicant received a letter dated July 13, 2000 from Tropix declining Applicant's request for Mr. Edwards to sign the formal papers. Based on this letter, it appears that counsel for Tropix has recommended that Mr. Edwards not sign the Declaration. A Declaration signed by Mr. Edwards was never received.
8. A decision was made to proceed without the signature of Brooks Edwards.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1002 of Title 18 of the United States Code, and that such willful false statement may jeopardize the validity of the application or any patent issued thereon.

Respectfully submitted,

FITCH, EVEN, TABIN & FLANNERY

October 10, 2000

By: \_\_\_\_\_

  
Richard A. Kaba  
Registration No. 30,562

120 South LaSalle St., Suite 1600  
Chicago, Illinois 60603-3406  
Telephone: 312/577-7000  
Facsimile: 312/577-7007

10/10/00  
Date R. A. Kaba  
Registration No. 30,562  
Attorney for Applicant(s)

1. I am an administrative assistant for Dr. Craig D. Shimasaki at ZymeTx, Inc. ("ZymeTx"), having its principal place of business at 800 Research Parkway, Suite 100, Oklahoma City, OK 73014. Dr. Shimasaki, along with Komandoor E. Achyuthan and Brooks

Edwards are named as inventors of the above-identified application.

2. The facts set forth herein are based on knowledge and belief.
3. On May 1, 2000, based on instructions from Dr. Shimasaki, I attempted to contact Mr. Mark Roskey at Tropix, Inc. ("Tropix") to attempt to located Mr. Brooks Edwards in order to obtain his signature on relevant documents, including DECLARATION FOR UTILITY OR DESIGN PATENT APPLICATION ("DECLARATION") relating to the above-identified application. Left messages for both Mr. Edwards and Mr. Roskey (781/271-0045).
4. On May 2, 2000, Mr. Roskey returned my call and provided me with a phone number for Mr. Edwards.
5. On May 2, 2000, I left a message for Mr. Edwards at the phone number provided by Mr. Roskey (617/547-7734). Mr. Edwards returned my call later that same day. Mr. Edwards requested that I send the DECLARATION and other forms to the following address:  
  

John Voyta  
Attn.: Brooks Edwards  
Tropix  
47 Wiggins Ave.  
Bedford, MA 01730
6. On May 2, 2000, I sent two original sets of the DECLARATION to the address supplied by Mr. Edwards by Federal Express (TRK# 7910 7968 2210) along with other documents and a note

providing ZymeTx's Federal Express Account number for return shipment.

7. On May 3, 2000, I received a facsimile from Ms. Melissa Kaplan Morse of Tropix indicating the forms had been received and were being forwarded to their patent attorney (Steven Kelber, Marbury, Rudnick & Wolfe LLP) for review. Ms. Morse also indicated that their patent attorney was out-of-town and unreachable until the end of May. I informed ZymeTx's patent attorney at Fitch, Even, Tabin, & Flannery of these developments.
8. On May 17, 2000, I received a facsimile from Ms. Morse indicating that Tropix's patent attorney had returned and wished to obtain a copy of the PCT application upon which the above-identified application was based. Based on instructions from Dr. Shimasaki, I sent a copy of the PCT application to Ms. Morse by Federal Express (TRK# 7923 3453 4763).
9. On June 13, 2000, I attempted to contact Ms. Susan Mahon, assistant to Mr. Steven Kelber, patent attorney for Tropix, in regard to the DECLARATION. I asked her to have Mr. Kelber call me. Mr. Kelber did not return my call.
10. On June 20, 2000, I again attempted to contact Ms. Mahon and Mr. Kelber regarding the status of the DECLARATION. Mr. Kelber returned my call later that day and indicated that Tropix had filed their own application. Mr. Kelber also indicated that Mr. Roskey of Tropix would contact Dr. Shimasaki regarding these matters. Mr. Kelber did not indicate whether or not Mr. Edwards would sign the DECLARATION. I relayed this information to Dr. Shimasaki.

11. On July 10, 2000, I called Mr. Roskey to again request the signed DECLARATION. Mr. Roskey indicated that he would talk to Tropix's patent attorney and call back later in the day. No return call was received.
12. On July 11, 2000, I left a message for Mr. Roskey and indicated our urgent need for the signed DECLARATION.
13. On July 12, 2000, I called Mr. Kelber and again indicated our urgent need for the signed DECLARATION. Mr. Kelber indicated that he would send Dr. Shimasaki a letter the next day detailing Tropix's position relative to the above-identified application.
14. ZymeTx received a letter dated July 13, 2000, via facsimile from Mr. Kelber declining ZymeTx's request for Mr. Edwards to sign the formal papers. A copy of Mr. Kelber's letter is attached.
15. A DECLARATION signed by Mr. Edwards was never received by ZymeTx.

I further declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1002 of Title 18 of the United States Code, and that such willful false statement may jeopardize the validity of the application or any patent issued thereon.

October 9, 2000

By:   
Julia Starr

Docket No. 68739

**A S S I G N M E N T**

We, **CRAIG D. SHIMASAKI**, of Edmond, County of Oklahoma, State of Oklahoma; **KOMANDLOOR E. ACHYUTHAN**, of Oklahoma City, County of Oklahoma, State of Oklahoma; and **BROOKS EDWARDS**, OF Cambridge, County of Lenawee, State of Massachusetts; for good and valuable consideration have assigned and do hereby assign to **ZYMETX, INC.**, an Oklahoma corporation, with its principal place of business at 800 Research Parkway, Suite 100, Oklahoma City, OK 73104-5046, its successors, assigns, and legal representatives, all of our right, title and interest in and to all subject matter invented by us and disclosed in the application for Letters Patent of the United States, Application Serial No. 09/548,714, filed April 13, 2000, entitled:

**VIRAL DETECTION METHOD USING VIRAL ENCODED ENZYMES AND CHEMILUMINESCENT SUBSTRATES**

signed by each of us contemporaneously with his execution of this Assignment, and in and to all Letters Patent, and all Convention and Treaty rights of all kinds, in all countries throughout the world, for all such subject matter. We agree to sign all documents necessary to secure all said Letters Patent and rights, and request issuance of said Letters Patent to the above Assignee in accordance with this Assignment.

9/20/00, 2000

Craig D. Shimasaki  
Craig D. Shimasaki

9/20/2000, 2000

Komandloor E. Achyuthan  
Komandloor E. Achyuthan

\_\_\_\_\_, 2000

Brooks Edwards  
Brooks Edwards



Docket No. 68739

STATE OF )  
 ) SS  
COUNTY OF )

I hereby certify that before me in the County of Oklahoma, in the State of Oklahoma personally appeared CRAIG D. SHIMASAKI, personally known by me, who then and there was duly sworn by me, and under oath acknowledged that the foregoing Assignment was duly signed by him on the date appearing at the foot thereof.

September 20, 2000

Susan Hammond

Notary Public

STATE OF )  
 ) SS  
COUNTY OF )

I hereby certify that before me in the County of Oklahoma, in the State of Oklahoma personally appeared KOMANDOR E. ACHYUTHAN, personally known by me, who then and there was duly sworn by me, and under oath acknowledged that the foregoing Assignment was duly signed by him on the date appearing at the foot thereof.

September 20, 2000

Susan Hammond

Notary Public

STATE OF )  
 ) SS  
COUNTY OF )

I hereby certify that before me in the County of \_\_\_\_\_, in the State of \_\_\_\_\_ personally appeared BROOKS EDWARDS, personally known by me, who then and there was duly sworn by me, and under oath acknowledged that the foregoing Assignment was duly signed by him on the date appearing at the foot thereof.

\_\_\_\_\_, 2000

\_\_\_\_\_  
Notary Public